

## IN THE CLAIMS:

Please amend claim 5 as follows:

- E1 5. (three times amended) A brittle frozen confectionery product comprising from 0.0001 to 0.5 wt% of antifreeze peptides, said product having an ice crystal aspect ratio of more than 1.9 wherein the antifreeze peptide is AFP Type III HPLC 12.

## REMARKS

Applicants' have filed a Continuing Prosecution Application to enable them to take advantage of 35 USC §103(c). Applicants' attorney is currently investigating the ownership of both this claimed invention and WO 97/02343.

### 35 U.S.C. 103(a)

The present invention, as claimed, aims at frozen food products having a relatively hard and brittle texture. (page 3 lines 31-33, application as filed). Many consumers are in favour of such relatively hard and brittle frozen food products.

It is not in dispute that antifreeze peptides may be suitable for obtaining a smooth texture. Clemmings et al teaches in column 4, line 58-60 that the addition of antifreeze peptides (AFP) leads to products with a smoother texture.

Warren reports that AFP has the ability to suppress ice crystal growth and inhibits recrystallisation.

Arbuckle aims at production of smooth ice cream (page 323 first paragraph under heading "body and texture defects" reads "ice cream texture should be smooth").

Griffith teaches in the abstract on page 375 that antifreeze proteins may improve the quality of foods that are eaten while frozen by inhibiting recrystallisation and maintaining a smooth texture.

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Also, as the examiner acknowledges on page 8 of the rejection of August 29, 2000, the use of smaller particle size to obtain a smoother texture would generally not be unexpected in view of Griffiths and Clemmings.

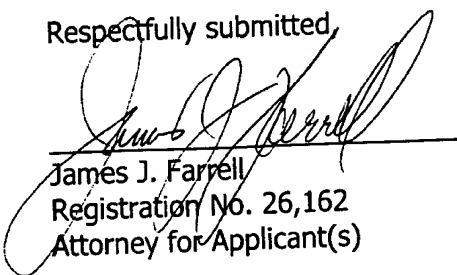
The unexpected result of the current invention is found in providing a brittle structure by the use of AFP. In view of all prior art teachings on smooth products containing AFP it is highly unexpected that brittle or crunchy products can be provided by using AFP, provided that the conditions are such that the products have an ice crystal aspect ratio of more than 1.9

Although WO 92/22581 discloses that low concentrations of AFP preferentially inhibit the a-axis growth, while at high concentrations, the crystals grow predominantly along the c-axis to form hexagonal bipyramids, this document provides no teaching on how to obtain brittle products. Especially the aspect ratio being required to be above 1.9 is neither disclosed nor suggested in WO 92/22581.

With respect to Clemmings, applicants further submit that Clemmings in column 3 line 22/23 states that "the other types of anti-freeze protein are also believed to be effective". The basic teaching in column 3 line 21 clearly recommends the use of type I AFP. The "belief" that other AFP is effective differs from a clear teaching. As no examples are given to support this belief, applicants submit that Clemmings does not hint at or suggest the use of type III AFP to provide a brittle frozen food product.

In view of the foregoing amendments and remarks, early favorable action is solicited.

Respectfully submitted,



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